

Yale University

EliScholar – A Digital Platform for Scholarly Publishing at Yale

Yale Medicine Thesis Digital Library

School of Medicine

1-1-1847

Dissertation on delirium tremens

Ebenezer Banks Belden

Yale University.

Follow this and additional works at: <https://elischolar.library.yale.edu/ymtdl>



Part of the [Medicine and Health Sciences Commons](#)

Recommended Citation

Belden, Ebenezer Banks, "Dissertation on delirium tremens" (1847). *Yale Medicine Thesis Digital Library*. 3657.

<https://elischolar.library.yale.edu/ymtdl/3657>

This Open Access Thesis is brought to you for free and open access by the School of Medicine at EliScholar – A Digital Platform for Scholarly Publishing at Yale. It has been accepted for inclusion in Yale Medicine Thesis Digital Library by an authorized administrator of EliScholar – A Digital Platform for Scholarly Publishing at Yale. For more information, please contact elischolar@yale.edu.



Digitized by the Internet Archive
in 2017 with funding from
Arcadia Fund

https://archive.org/details/thesesformd1842100yale_4

Harvey Cushing / John Hay Whitney
Medical Library

HISTORICAL LIBRARY



Yale University

Dissertations
read by the
Candidates for Degrees and Licenses,
at the
Annual Examination,
in the
Medical Institution of Yale College,
January 20, 21 & 22,
1847.

II.

Dissertation
on
Delirium tremens.

By
Ebenezer Banks Belden, B. A.
Of Fairfield,
Candidate for the Degree of Doctor in Medicine.

Selenium, Bernese

It would almost seem as if the disease under present consideration were especially appointed as a penalty to wait directly upon the sin of Drunkenness; for whatever may be said of its alleged production in certain rare cases by other agencies than that already adverted to, all are ready to agree, that the intemperate use of intoxicating & more especially spirituous liquors are its principal, — almost if not altogether, its sole victims. Whether, indeed, the disease is ever induced by other articles than alcohol is a controverted question. — Some writers confidently maintaining that genuine Selenium Bernese is witnessed only in Drunkards, while others again assert that other substances, as Opium for example, are adequate to its production; and in confirmation of such views cases are cited as occurring in persons in no wise addicted to the use of intoxicating beverages. It deserves however to be remembered in connexion with this subject, that it is not always easy to determine with absolute certainty whether persons

well reputed among their neighbors for temperate habits
are deservedly so reputed, since it not very infrequently
happens that individuals, more especially among the better
classes, shielded by the circumstances of their rank & station
from vulgar scrutiny, are found to have been addicted
to the immoderate use of intoxicating ^{drinks}, for a length of time
without having established in the least degree a character
for intemperance or being assailed even by the breath of sus-
picion. In this way, possibly, is to be explained some
instances of the occurrence of the disease supposed to be
entirely removed from the action of the ordinary causes which
operate in its production & more especially when we take
into account the well-known fact that the long-continued
use of alcohol in quantities short of intoxication is even
more efficient in the production of the affection than
occasional fits of intoxication with intervals of abstinence
between. — Leaving the decision of this question
however, to those more competent for the task, we pass to
the ordinary exciting causes of this disease, — a state of
the system having been induced, by whatever means,
favouring its access.

In a constitution predisposed to the disease, whatever

operates to make a strong & sudden impression upon the system may serve to develop the disease & the intensity with which the exciting cause will require to be applied will vary with the degree of predisposition. It may be a single violent detouch, more especially if directly succeeded by a sudden abstraction of accustomed stimulus, or other depressing cause; great losses of blood, the consequence of injuries or otherwise; excessive alvine evacuations; long continued abstinence from food; the impression made upon the system by the action of other diseases causing this to supervene upon the previously existing disease or to follow as a sequel; the shock produced to the system by fracture & other injuries: Such are among the common exciting causes which, acting singly or as may be, several of them in concert, are observed to produce the disease in persons who by long-continued excesses have rendered themselves liable to its attack. The shock arising from fracture in particular, deserves to be mentioned as particularly prone to develop this disease in the class of subjects of which we speak. A knowledge of this fact should lead the surgeon to be on his guard in such cases & ready to detect the first indications of the approaching malady, in order

if possible to prevent the further development of the disease or at least to mitigate its severity by the employment of appropriate treatment in its early stage. The disease supervening upon injuries has been called *Delirium Traumaticum* — in all probability one & the same disease, the injury being deserving of no higher consideration as concerned in its production than as an exciting cause; inasmuch as the disease so denominated seems chiefly to have occurred in persons of intemperate habits, — & to have been characterized by essentially the same symptoms & to have been successfully treated by the same means.

The approach of this disease is announced by symptoms of general indisposition, — diminished animal temperature, in particular a cold & clammy state of the extremities, — anorexia or positive loathing of food, — vertigo, — a sense of oppression at the praecordia, — in some instances, nausea & vomiting. At the same time the appearance & manner of the patient is observed to undergo a marked change; his countenance is anxious & dejected; his spirits are much depressed; he is troubled about his affairs, sighs frequently & is distressed with forebodings of evil. A disinclination to sleep

is early manifested & even before the obstinate perisig-
ilium which forms so marked a characteristic of the
disease in an after stage is fully established, — Though
the patient may sleep, his slumbers are transient & disturb-
ed with harassing dreams. The pulse in the commence-
ment of this disease, as some say, is invariably slow,
as most concur in saying, soft & compressible. The tongue
is moist, more or less furred, & is frequently tremulous.
The intestines are commonly rather torpid, though with
respect to this, no uniform state is invariably present.
The skin, over the surface generally & especially upon the ex-
tremities, is cool, as already noticed. It is also moist
& is bathed in a profuse sweat upon the most trivial ex-
citation. This however is more strikingly manifest in the
more advanced stages of the disease.

As the disease progresses there is an aggravation of the
symptoms generally which have been mentioned & with the
addition of others more decidedly indicative of its char-
acter. There is increased restlessness & watchfulness, —
commonly a disinclination to lie down & disposition to
be moving continually from place to place. The pulse
increases in frequency — the hands become tremulous.

The patient betrays an unsteadiness in all his motions, with unusual precipitancy of speech. The countenance assumes an aspect of wildness; the eyes are cast about with quick & searching glances or often fixed upon some object which engrosses the attention for a moment & then perhaps suddenly withdrawn. The mental aberration now becomes more decided. The patient is continually seeing objects which are present only to his disordered senses, & these become the burden of his incoherent conversation. All manner of frightful, disgusting, & annoying objects pass in review before him. He is haunted by demons, — very frequently a variety of them: "big devils & little devils" are on every side. Termites, in swarming myriads, are creeping over him. Beegs are sitting upon, or sharing with him even more familiarly than these, his bed. Cats & mice are burrowed in his bed clothes & he labors to dislodge them. If allowed his liberty he will frequently leap suddenly out of bed in pursuit of some phantom or fly precipitately in retreat from some hideous apparition. It is very common that the subjects of this disease convince themselves

not in their own house but confined in some dismal place & earnestly entreat the interference of their friends or the bystanders for their release. They frequently imagine themselves engaged in their accustomed occupations. The tradesman, wrapped in an air of abstraction, is busied with negotiations, receives money, settles accounts, — the mechanic goes regularly through with the ordinary manipulations of his art, — the sailor is working his ship. The hallucinations of patients are often sufficiently ludicrous, but oftentimes the spectacle is such as to move our profoundest pity. Brest on every side with the hideous creations of his disordered fancy from which he vainly endeavors to fly, — occupied incessantly with torturing conceits which rob him of all peace & rest, the miserable sufferer labors under a state of the most intense mental excitement & often presents a picture of utter agony. In his struggles with his imaginary enemies a profuse sweat is poured forth which stands often in thick drops upon his forehead & is continuous in a greater or less degree throughout the course of the disease. From the moment delirium is fairly established, there exists the most obstinate

watchfulness. Sleep seems to have forsaken his eyes. Occupied continually with his mental illusions, no sooner has one vagary passed away & ceased to de- spoil him of all mental quiet such as should induce sleep, than another succeeds, to vex his soul anew & thus he is kept continually upon the rack. During all this while, however, his morbid train of thought may be tem- porarily interrupted. To questions addressed him, his replies are often sufficiently opposite & coherent. His attention may frequently be engaged for a moment & his mind turned off from its engrossing hallucinations by the entrance of some one into his room who has not before been about him, but it is only for a moment & he relapses again into his former state.

In cases which proceed to a fatal termination, the same state of mental & physical perturbation continues till nature can endure it no longer. If haply before this, by the timely interposition of appropriate remedial measures or the sanative efforts of nature, sleep be procured — a sound & tranquil sleep lasting several hours — the patient usually awakes refreshed, — the specter which haunted him has fled & he is recovered.

In case when the issue is less fortunate however, the symptoms gradually augment in severity. The delirium by degrees assumes complete control of the patient, so that he no longer knows what is passing about him. Wholly absorbed with his mental illusions he mutters incessantly to himself, or as may be, now & then utters loudly & impetuously something prompted by an unreal scene which is before his mind's eye & in which he supposes himself to be an actor; the tremors of the hands increase attended with agitation of the entire frame; the muscles of the face are incessantly twitching producing frightful contortions; the countenance is deadly pale & wears an expression of exquisite distress; the pulse becomes more & more frequent & indistinct so as scarcely to admit of being counted; sudden & rapid collapse of the vital powers takes place; the extremities become icy-cold, — the breathing stertorous & Coma or convulsions close the miserable scene. In some cases it is said shortly previous to death a delusory calm takes place which is the speedy precursor of the fatal issue, but it is believed a state of profound insensibility with or without convulsions, as noticed above, is the one

12
more frequently observed as the immediate antecedent of a fatal termination.

Without entering minutely into the diagnostic symptoms by which this disease is to be distinguished from such as more nearly simulate it, it may be generally observed, that the peculiar character of the delirium already sufficiently adverted to, with the frequent but soft pulse accompanying it, — the tremors of the hands & tongue with the unsteadiness of all the voluntary motions, — the profuse perspirations incident upon slight exertions, — the obstinate & ordinarily unremitting watchfulness which obtains, will ordinarily be found sufficiently pathognomonic of its character. Indeed no one who has ever seen a strongly marked case of this disease will be likely ever to forget it or to fail of recognising it when he sees it again.

With regard to the prognosis which is to be formed, it may be sufficient to observe that when the powers of the system are not greatly broken down & the disease is not associated with other constitutional maladies or severe local lesions, the prognosis in a first, second or even third attack is ordinarily favorable.

When however the disease has recurred repeatedly; when the Constitutional vigor has been greatly impaired by long-continued excesses, then having induced great disorder of the gastric, hepatic & other subordinate parts of the digestion system; when this supervenes upon other diseases, or is complicated with some local injuries; then all are modifying circumstances which are likely to influence materially the result & may afford us reason to apprehend a fatal termination. The occurrence of this disease in patients laboring under fractures or other severe injuries always constitutes an exceedingly unfortunate complication, inasmuch as it becomes necessary in such instances to impose restraints upon the patient, — a circumstance always greatly to be deprecated. It has already been mentioned as a characteristic symptom of this singular malady that the patient is continually wanting to get out of bed — to be changing from place to place. He is always impatient for of the least restraint & inasscible if opposed in his wishes. Hence the necessity which arises in these cases of confining the patient to a fixed position is always to be regarded as an extremely

unfortunate one, since the mental irritation which it will surely produce together with the exhausting bodily struggles which the patient no less surely will make to liberate himself from confinement can not prove otherwise than highly disastrous in their effects.

The pathology of the disease is a subject respecting which there has been a considerable diversity of opinion. Some writers have chosen to consider it as strictly a nervous malady; others have regarded it as a febrile disease; some would refer its seat to the stomach, others to the brain or its membranes, while others again (probably with greater propriety) consider it as a functional disease & not necessarily connected with structural lesion in any part.

We do not propose to ourselves the task of canvassing the merits of the one or the other of these opinions, but shall not content with the simple statement of the different views which have been entertained upon the subject.

As might be expected from the differences of opinion which have been noticed respecting the pathological character of this disease, some diversity of opinion has existed in relation to its appropriate treatment

Under the idea, probably, that the disease is connected with inflammation of the brain or its membranes.

The use of the lancet has been recommended. It is however at the present time more generally discarded as altogether an inappropriate remedy in the ordinary & uncomplicated forms of the disease. Those indeed who have advised its use have commonly felt it necessary to accompany the recommendation with plenary cautions in respect of the amount of blood safe to be abstracted, — the impracticability ordinarily of repeating the operation, & the hazard even of venturing upon it at all without the greatest circumspection in respect of the cases in which it is to be trusted to. It is a well recognized fact that the class of subjects liable to this disease in general ill bear sanguineous depletions even in those diseases where the usual symptoms afford much less equivocal indications for the use of the lancet than those which are present here.

A mode of treatment which has received more favor though still adopted to a very limited extent — is by Emetics. Much success is claimed in the treatment of this disease by Tartar Emetic given to

The extent of producing the vomiting & repeated
once, twice or more as is judged necessary. A large
proportion of cases will doubtless recover under this
as under almost any mode of treatment, yet it may
well be doubted whether it is well adapted to the
worse forms of the disease or is the most reliable
means of cure as it is ordinarily met with.

By far the more common mode of treatment
is that in which principal reliance is had upon
narcotics. The great indication is considered to
be, to procure sleep, — not that sleep by whatever means
induced will invariably effect a cure, but that
it is essential to recovery. No other way of escape
is open to the miserable sufferer from the tormenting
phantasies with which he is possessed: The spectres
which haunt him will not away till sleep comes to
his relief & shuts them out from his vision — nor al-
ways then. To fulfill this indication of course has
been had to Opium, which has been recommended
by most who have written upon the disease as the main
remedy in its treatment. Its power over the disease
is set forth by some in very strong terms. We find

12
language like the following held concerning its
efficacy. By one, — "It is entirely & absolutely
under the control of Opium". Another says — "Opium
in large quantities never failed to cure simple
Sclerum Tenuis, at whatever period of the disease
it was administered" Another, — "All that is required
to make a safe, a quick & pleasant cure is to give
Opium in sufficient quantities. Such however is the
language of extravagance. Opium is undoubtedly
a remedy of great value in this disease. It is impos-
sible to resist the mass of testimony in its favor. It
is the remedy which has been & probably is still more
trusted to than any other in the treatment of this
disease, yet it is not to be considered as affording
by any means an infallible means of cure or as
deserving of exclusive consideration among the list
of remedial agents. If trusted to, it should be
given in free & repeated doses till a disposition to
sleep is witnessed or the ultimate effects of the art-
icle begin to be manifested. It is impossible to prescribe
any definite rules with respect to the quantity proper
to be administered as this must necessarily vary

much under different circumstances. In a case of much severity, it might be proper to commence with from 2 to 5 grs of Opium & after the lapse of two or three hours if no effects are observed, continue its administration in dose of a grain or more repeated every hour.

Another remedy belonging to the same class & which some deserving of very high consideration in the treatment of this disease — is Digitalis.

Though more recently applied to the treatment of this affection, — has extensively used & possessing less evidence in its favor than Opium, ample testimony is not wanting to the decided efficacy of this article as a remedial agent in the disease under consideration. Some practitioners have found its use attended with so great success as to be led to rely solely upon it in the generality of cases. To ensure its remedial effects however in their full measure it requires to be administered with much greater freedom than would seem admissible if guided by the directions which are ordinarily met with for the administration of this article. It would seem prob-

able indeed that the activity of the medicine has been greatly overrated & that in disease generally in which its use is indicated, it may often safely & advantageously be prescribed in much larger quantities than those commonly directed. It may be exhibited in this disease in dose of a fluid dram of the Tinct. every hour, several times repeated — or as some prefer in full doses of a half ounce repeated once or twice at intervals of two or three hours & then suspended. Such is the plan usually adopted by Prof. Hooker of the Inst. as stated in his Publish'd Essay on the Prop. & Cur. Functions. Forbearing any direct attempts to procure sleep during the day, it is his habit to direct at evening an ounce of the Tinct., of which one third is to be taken every two hours till the desired effects are produced or the whole is taken. If this should fail which he has seldom found the case an ounce & a half is directed the following evening to be given in the same manner.

In some few cases, however the attempt to induce sleep with *Scigitalis* has failed altogether, in which

The exhibition of a small amount of Opium subsequently entered upon has been attended with success. Without doubt the converse of this would be observed to happen in numerous instances. An exclusive reliance, therefore upon either article in all cases, is not to be advocated & perhaps the conjoined exhibition of the two is the plan which would promise most success in the larger share.

It is common that a variety of subsidiary remedies are mentioned in treating of this disease as certain of the Antispasmodics, Rhoifusda, Castor, Mustk, Ether — Camphor, Ammoniac — Irritants to some portion of the surface, Rubefacients, Epispastics. The warm bath, & cold affusion have both been recommended.

In individual cases where there is much torpor of the alimentary canal or of the system generally, it may be proper to administer an emetic or cathartic before entering upon the more direct curative means which have been mentioned.

It is a question of moment in the treatment of the disease whether in the case of patients who

have been long addicted to the use of spirituous drinks, the accustomed stimulus shall be entirely withdrawn. It is well known that the disease is frequently induced in old & intemperate tipplers by the sudden withdrawal of their usual beverage & then are those who (taking hint from this, it may be) treat the disease mainly by the free exhibition of alcoholic liquors & boast of their success. Others prefer to dispense with them entirely in all cases.

In the decision of this question, however, we should have reference to the state of the pulse — the Constitution of the patient & his previous course of life. If the pulse be very frequent & feeble & the Constitutional vigor has been greatly impaired by long continued excess as in old & broken down drunkards, the entire abstraction of the accustomed stimulus to which the system has become habituated, as it were, from long usage would seem to be a measure of very doubtful propriety, — however revolting ^{in itself}, may be the idea of administering the very agent which is responsible for the mischief which we are called upon to remedy.

7
It has already been indirectly stated that coercive measures should be abstained from as far as possible in the management of Patients. All unnecessary opposition of their wishes with what even has a tendency to exasperate or in any way irritate, should be sedulously avoided. A mild & conciliatory manner should be had with them & the tendency to sleep promoted by every means in our power. The first slumbers of the Patient are often interrupted by sudden startings, but in general if the treatment has been efficient, he speedily relapses again into a profound sleep which puts an end to the disease. If the Patient awakes (as happens in some rare instances) with no mitigation of symptoms & immediately recurs to his former morbid train of associations it is an occurrence of ill omen with respect to the event of the case.

In general, however, if we can succeed in inducing a sound & tranquil sleep it is followed by a speedy restoration. And here we can not forbear to advert to the period of recovery

as one which the physician should seize upon, in the
hope, though it be a faint one of making a salutary
impression upon his patient. The spell which surrounded
him with Legions of Demons, — which filled his pres-
ence with all manner of horrible Things to affright
& torment him is broken: he is himself again.
Yet these fearful creations of his disordered fancy are
still fresh in his memory. The fierce tortures through
which he has passed are still present to his recollection
with painful distinctness. At such a time, reason
will assent, tho' it be for a little moment, his supremacy
& point him to the guilty cause of all this evil & the dire
consequences which inevitably await further persistence in
his criminal indulgence. Every circumstance points to
the present as a favorable crisis, in which if ever the hope
may be entertained by faithful representations & well-di-
rected efforts to induce the patient to abandon his
Cups, — an opportunity which however unpromising
in general the attempt may be should not be suffer-
ed to pass without an effort to accomplish so
important an object as the reformation of a
drunkard.

E. B. B.

YALE MEDICAL LIBRARY



3 9002 08670 4815

1847

Accession no. 22996

Author Yale Univ.
Theses for M. D.

Call no.

T113

Archives

Y11

